

PC/09

CRF Errors Corrected by the STIC Systems Branch

CRF Processing Date: 5/21/2001

Edited by:

Verified by:

Serial Number: 09/85,000

ENTERED

 Changed a file from non-ASCII to ASCII Changed the margins in cases where the sequence text was "wrapped" down to the next line. Edited a format error in the Current Application Data section, specifically:

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 Edited the Current Application Data section with the actual current number. The number inputted by the applicant was  the prior application data; or  other \_\_\_\_\_ Added the mandatory heading and subheadings for "Current Application Data". Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer. Changed the spelling of a mandatory field (the headings or subheadings), specifically:

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 Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: 1 Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place. Inserted colons after headings/subheadings. Headings edited included:

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 Deleted extra, invalid, headings used by an applicant, specifically: Deleted:  non-ASCII "garbage" at the beginning/end of files;  secretary initials/filename at end of file;  page numbers throughout text;  other invalid text, such as \_\_\_\_\_ Inserted mandatory headings, specifically: Corrected an obvious error in the response, specifically:

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 Edited identifiers where upper case is used but lower case is required, or vice versa. Corrected an error in the Number of Sequences field, specifically:

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 A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted. Deleted ending stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected:Other: Seqs 38,58,148- deleted nos. under stop codons

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Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

PCT

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/831,000

DATE: 05/21/2001  
TIME: 08:37:41

Does Not Comply  
Corrected Diskette Needed

Input Set : A:\53683 seq listing.txt  
Output Set: N:\CRF3\05212001\I831000.raw

3 <110> APPLICANT: Oregon Health Sciences University  
5 <120> TITLE OF INVENTION: Cloning of Rhadinovirus Genome and Methods for its Use  
7 <130> FILE REFERENCE: 53683  
C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/831,000  
C--> 10 <141> CURRENT FILING DATE: 2001-05-02  
12 <150> PRIOR APPLICATION NUMBER: 60/107,507  
13 <151> PRIOR FILING DATE: 1998-11-06  
15 <150> PRIOR APPLICATION NUMBER: 60/109,409  
16 <151> PRIOR FILING DATE: 1998-11-20  
18 <160> NUMBER OF SEQ ID NOS: 179  
20 <170> SOFTWARE: PatentIn Ver. 2.1

## ERRORED SEQUENCES

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24 <212> TYPE: DNA  
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RAW SEQUENCE LISTING DATE: 05/21/2001  
PATENT APPLICATION: US/09/831,000 TIME: 08:37:42

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DATE: 05/21/2001  
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RAW SEQUENCE LISTING DATE: 05/21/2001  
PATENT APPLICATION: US/09/831,000 TIME: 08:37:42

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RAW SEQUENCE LISTING DATE: 05/21/2001  
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RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/831,000

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 414 gagggagaag gggtgcggct aaatgggtcg ttagcagccaa accgcgcgg gggaaaaagg 23220  
 415 gggcaaacgc cgggttaaca caaacgcaa caggcgccaa acccaatata acacaacgc 23280  
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 422 ggcagcaggc caaaaacacg ggcgcgcga gcggccggca ggtggccggc cgctttcccc 23700  
 423 cacccgcga ttggcaaaa tggcgaccg gcagcgcgg ttggacgcgg cggacgtcaa 23760  
 424 tcacgcacgg gagaagcgc gttggtcagt tgcgttcata atcaccggg ggcgcgcgg 23820  
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 426 ttgggtttgt ttacaaggta cctatata ttatattata ctttcctgt taagggatc 23940  
 427 ccatgttctt aaatctaatac agctgggtta tataattaga atatcgtaa ttactattat 24000  
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 429 tattatgtaa tcagatactg ggaatctac tcccgatgttta ataaaaataaa ataattaaatt 24120  
 430 ctattatggt ggggttctaa atattgtac aaaacaacaa tattttttaa atttattcac 24180  
 431 taaaaatgtt cccattttac ttgtgacgta catgttagga atgtggagt ggttgcatac 24240  
 432 tatgtttca aacaacaccc ttttggccg tctgaaactc atataagcgg aaggtcgcc 24300  
 433 gttaattgcc actggccgtt aaccagtccaa ccttgccagt tggagttta ttgtgccta 24360  
 434 tggcttacc tcgcattccg ggcacaagct gatttacgta gcacgcattt ggggtttaac 24420  
 435 cgggttgaat ttgtgggtt gcacgtgtaa aaaagccac cggaggcttgg gtttgcgt 24480  
 436 ttaaagcggtt gctgggtttaa acatgcga ttaattgtt atggggacta gcttgcattc 24540  
 437 cgcattgtttt cgggttttagta gtttacaaa acagaattgtt agccgcacaa ttgttactgg 24600  
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 443 gtggattttt aaattgtttaaattgttta attacgtgc cgtggattttt aaaattgttat 24960  
 444 ttatgttaaca ttgtttaattt ttaactgcgt tatgggtttaa tttgtttaat 25020  
 445 ttgcctttaa gattttgtcg ggtgtgaatt ccagacaggt aagagcctag ctccataatgt 25080  
 446 ttgccttgcgc gcctagctcc taatgtttgc cttgcgcctt agtccttaat gttgccttgc 25140

RAW SEQUENCE LISTING DATE: 05/21/2001  
 PATENT APPLICATION: US/09/831,000 TIME: 08:37:42

Input Set : A:\53683 seq listing.txt  
 Output Set: N:\CRF3\05212001\I831000.raw

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 449 gttgccttg ccgcctagct cctaattttt gccttgcgc ctagctccta atgtttgcct 25320  
 450 tgccgcctag ctccataatgt ttgccttgcc gcctagctcc taatgtttaa caacattaat 25380  
 451 gtttaagcac actaaaattt aaagacgttt gtgttgggtt ttatgaccag ctgggtacaa 25440  
 452 aacctgctgg tgatTTTTTA cccaaacaaat aataaataaa aaagttaaaa ctatTTCTG 25500  
 453 ttgtctgtgg taattgggtt ccccgagggt cccgggctcc cgttccccg agggtcccgg 25560  
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 472 gaaacgcgta ggtgttttag tgtttcatgg cacgtttcg tgtcacgta ggagtggta 26700  
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 476 ggaagaaaat gaaaatttt tgccagttga cgtttatgtc atagaggcgc tctttttta 26940  
 477 ctgtgggctc gggcaggcgg agtacttgca ccatcccggt tttagcccta ttaaggaatt 27000  
 478 tattcagcgcc ttctcaagg acagcgctcg cctgtacgag aggctttgc gccacaccga 27060  
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 494 ggtccctcag atccgcctga atgtccaata ttttttttttgc cagcgcacatg acgtccctgt 28020  
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/831,000

DATE: 05/21/2001

TIME: 08:37:42

Input Set : A:\53683 seq listing.t

Output Set: N:\CRF3\05212001\I831000.raw

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498 gtgcgtacga tgggacggtc agctcaggcg gcggtatcca cgatggatac gcccgcgtt 28260  
499 ccggcatcgaa ggtggcgca gaaacgtacg tgcgtggcc ctgggtgcgc atgttatacg 28320  
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508 gccatgtgtg taacatctcc aacagggggt cccgaggcat ggggtttagc tggatctggg 28860  
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510 tgcccaggca aaatatcccg tgggttactt ggaagagacc gattgtgtga cctacgtggg 28980  
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512 cgattgaggg ctctaaatac agctctttt ctatctttg taggctgacc acgtccacgt 29100  
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514 gcgcggctc tcgggggtcg atgtggcgcg ttatccgtt tgagaatttgc aatacggtt 29220  
515 tcctggcgaa gtcaggtt cttcaccctgg tgctgtgcga aatgtacaac tacgggttca 29280  
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520 acagcgatcg cgtggttccg gaaaacctaa cggatgggaa ttatctctat aacctaggca 29580  
521 ggcgtatacc atgtcgccctg ctgtggcac ttagactctg tttggcggtt tggggcagc 29640  
522 ctgaccacga gcccgggtc aggttgcgtc cggcaagat ttttatactg tacttaataa 29700  
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526 ataacagcgt agtgttagggt cgcctcacac taccgcgtg gcgacccgca ggtatcccag 29940  
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**RAW SEQUENCE LISTING  
PATENT APPLICATION:**

DATE: 05/21/2001  
TIME: 08:37:42

Input Set : A:\53683 seq listing.txt  
Output Set: N:\CRF3\05212001\I831000.raw

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/831,000

DATE: 05/21/2001

TIME: 08:37:42

Input Set : A:\53683 seq listing.txt

Output Set: N:\CRF3\05212001\I831000.raw

594 actttggaaa aaagaaaaaag tttgtcgca tcaagtataag ttaatgtgca taataatgac 34020  
595 tatacatttt gtaaatcttc aagtgaccat gtaattaacc ttacgggtgga ttttaattac 34080  
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608 gcagagtccc aggttttaa ctggccggca aatagcatgt tattcgttac agtaaatgat 34860  
609 caagaggtcg tattttcaat gttttaaaattt gtatataata cacctaaggt tgggtgtaaa 34920  
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611 cagctaaccat acacatttag gcggaaatgta atgaacatgt atgaagttt aacaacaatt 35040  
612 aaattaaacg tcacagattt ttctgtgtt tattccgtata tattgttac atccatgtgt 35100  
613 aataatgttag agatatcata tattgattaaat caaatagcaaa agcccgatga cataccata 35160  
614 tttcgcgtgt tttcgcctt gtttttaagc ttaaggttt attagatga aaacaagcta 35220  
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RAW SEQUENCE LISTING DATE: 05/21/2001  
PATENT APPLICATION: US/09/831,000 TIME: 08:37:42

Input Set : A:\53683 seq listing.txt  
Output Set: N:\CRF3\05212001\I831000.raw

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656 agggaaatta gtgttccaga aaacgtctcg cggccccgt ctaactatgt atttgtttt 37740  
657 aagcccggtgg aggtctaaacg taggttcca gtgcgaatc gaaacccgggaa aatgtgtt 37800  
658 caccgtaaa aacgcacccgtt ggtttccat agcgaacata aagtgcacca tgcccccgt 37860  
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683 aacaggcccc tgcacacacca taatggggc ggttgcgttgc gtacgaccctt tcccatat 39360  
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744	caacgaaagc	ggcggaaacgtt	tgctcttga	ccactccatc	ccggattctg	cctacgaata	43020
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RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/831,000

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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/831,000

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RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/831,000

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Input Set : A:\53683 seq listing.txt  
Output Set: N:\CRF3\05212001\I831000.raw

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 901 ccaaggttca gactgacgac gacagacacg catcgccca tataaccgtc attaaaacac 52440  
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RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/831,000

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Input Set : A:\53683 seq listing.txt  
Output Set: N:\CRF3\05212001\I831000.raw

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940 ggaactaaaaa atttgggaac ccagaaaaac tttatagcga ctggctttt tagaaaacgg 54780  
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959 cttttttttttttt tttttttttttttt tttttttttttttt ttttttttttttttgc 55920  
960 taaaacacggat gttttttttttttt tttttttttttttt ttttttttttttttgc 55980  
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962 ctggaggctt gttttttttttttt tttttttttttttt ttttttttttttttgc 56100  
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964 cttttttttttttt tttttttttttttt ttttttttttttttgc 56220  
965 tagtttaac gttttttttttttt tttttttttttttt ttttttttttttttgc 56280  
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984 cttttttttttttt tttttttttttttt ttttttttttttttgc 57420  
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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/831,000

DATE: 05/21/2001

TIME: 08:37:42

Input Set : A:\53683 seq listing.t

Output Set: N:\CRF3\05212001\I831000.raw

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RAW SEQUENCE LISTING DATE: 05/21/2001  
PATENT APPLICATION: US/09/831,000 TIME: 08:37:42

Input Set : A:\53683 seq listing.txt  
Output Set: N:\CRF3\05212001\I831000.raw

**RAW SEQUENCE LISTING**

PATENT APPLICATION: US/09/831,000

DATE: 05/21/2001

TIME: 08:37:42

Input Set : A:\53683 seq listing.txt  
Output Set: N:\CRF3\05212001\I831000.raw

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1111 tcctggccaa ggatcacac tttaatatcc tccgggttcgc aacaatacga ccaccacata 65040  
1112 attctatctt atcgggtata aatcacgtt acgttgcata tatccataac gcgttcagc 65100  
1113 agagccgcga gcttctgttt taaaaatggaa gaaagatttaaaattcaag ccatgagtcg 65160  
1114 ctaagtagca acgtttgtgt ggagggttct tctaacaactt ctggtgacat ttactccaa 65220  
1115 actattgttt taagccaaacc ctccatataat ccccgctgtc ggttaattact ttacgtatac 65280  
1116 gtgaaacttt tgtaacttcg tctgagaaat ccaacagagg tggccgcgtta taagcagttc 65340  
1117 cgcttcactt accgtttatg tgaagtcctt ccaaactcgcc taaaaactca tcaagactat 65400  
1118 attcataatacatttcaacaat tgaagtcctt ctctggggac actgttaattt aacttgtaca 65460  
1119 aaatccttat taaaaacgc ctaaggtgaa atccatttac acatatttct gtggtagagc 65520  
1120 gatcagttt atatcgcaat gttgtgtac acagccctgg acataaagct aaatttggta 65580  
1121 aatgaaaaaa agcaatctca aacggctccg gaaatataaa gtcactaagt ggttattttt 65640  
1122 tacaacatgg atttactaca agccgggtac aacatgtat taaaaaaat ccacatgtaa 65700  
1123 taaataaaact taaggttatac atacttctca tgggtttatac ataataatgaa cgctaatgtc 65760  
1124 gtacttatataat aatatgtata gaattatgtca aatacgtca tggtaatgtt attttaaggc 65820  
1125 ataatgtcaaa catcaataaa tataacacaa atgcacgtc tccggatatac cgcccgatc 65880  
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1127 atatgtcaaca atatgtcagg gtaacaccat gttataaaaa tacgcagcat gcacattttt 66000  
1128 agctaagctc ctcaaaagaca atttccttcc caattgtat ctcataacc tcgtttccg 66060  
1129 tggtaatgtc gggaaatataat ggtccagga taccctcgatc atgcacccaa attaattcca 66120  
1130 gggcttgtaa aatatcatcc agtgaatcag ctgtcaatgtt caaggatgtt gtttctaattt 66180  
1131 ttagcccatc caaatggta gtgggtgaca ctttgggaca agacccgtt aaattggc 66240  
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**RAW SEQUENCE LISTING**

PATENT APPLICATION: US/09/831,000

DATE: 05/21/2001

TIME: 08:37:42

Input Set : A:\53683 seq listing.txt

Output Set: N:\CRF3\05212001\I831000.raw

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/831,000

DATE: 05/21/2001  
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Input Set : A:\53683 seq listing.txt  
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1182 attacgccaa cccagggcgt tggacacgtg gaaagcggtg 69300  
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1186 cccccaatg tccccccaa gaggatggaa acggtagcac agttggaaa cgctcccgta 69540  
1187 aaaaacgtcc acatcgaggc cgcgtatac gctccactgg ttaatatacc aataatagac 69600  
1188 ttaacgtccc cgtcagggtc cggccagagt cggccgata tcgccaacac tccagagtcc 69660  
1189 cgcattggcgg cggctctcc gcccattcgcc gaaaccgcgg caacgtccc cgctaaagaga 69720  
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1191 acagtaaacc acccttccc gggaccgtcc gggatgcgcg ttgcgagca gggcttattc 69840  
1192 gattdaatcg aaagctccac ggatgttaacc gcgacgcac ctggacccaa aacgcacgac 69900  
1193 gacatgctag cggctatcct acaggacactg tatggactac agtccccccc ggcacatcgat 69960  
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1195 gcccacggat cgccattgaaa gatgacccaa agacgcacaa tcacaccacc gagacagtcc 70080  
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1197 gacaaaaatg agcttcaac ttacccattt tctgtctat ttggggacac taaaaaattg 70200  
1198 tcggccagtgg cgacaaatttt taatgtgtg taaaatgtcac tctttctcaa gtttctgtcc 70260  
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1201 gagaccccaa gtgttgaat ttatgccatt agatctccac ggtggaaacac acacggagat 70440  
1202 ggatttctaa aacctgtgtc ctgacggcca ggatctgc ggttcttata ttatatacgga 70500  
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1206 ggctgcacta attcacgcgg cgccggagc gtctgtggc gagcaaggca cctcacagg 70740  
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1211 aaaaacgcgcg cggcagtgca agacctcagg aaaaaataaa gcccacacgc tgcaacagg 71040  
1212 acaataagca aatttagtaa tttgttattt ttaagttcc gaggtttcc cgctggctg 71100  
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1217 tatttcaccct tcaataaaat aaaatttaa tacgtttgcg gtttgcctt ttccgtctt 71400  
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1221 cgaggcggta tacaggcaact acctcgaaaga gtgcgcacaa catgaaggct cggggagcc 71640  
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1225 cccggaaattg gcgcaaccc acctcgaaaga gtgcgcacaa catgaaggct cggccgcagg 71880  
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1228 gtccgttgcg gatcgaaaca cggtcacgc cagctatgt aaccctggcc gcccattccct 72060  
1229 ctttcaagcc agaccctcgat ctcacggcgc gctgttaccc cttcgcccc gaaacgtggc 72120  
1230 aagatacgcc gagtcgcgaa caatatgcga caaaaattga ccgcaagaa taccacgcgg 72180

RAW SEQUENCE LISTING DATE: 05/21/2001  
 PATENT APPLICATION: US/09/831,000 TIME: 08:37:42

Input Set : A:\53683 seq listing.txt  
 Output Set: N:\CRF3\05212001\I831000.raw

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 1232 cattcctccc ttccggacg ccgtggcacc tggttcaccc cctgtgggtt atggccggaa 72300  
 1233 tattggccct cacgatcgcc ttgtacacga tataatcaat atatgcacat agaaaactaca 72360  
 1234 cgacgcttca ctgcgaataa aggtttattt attttgcaca ctgtccgcg tcgttatttc 72420  
 1235 tggctctggg ctggggcgcg ctccctcga ggcggccgcg cgcgtccgcg gcgattccgc 72480  
 1236 ctctgggtt ctgcgtccatt gacacgtcca cgcggataact aattccggcg agggcgtctt 72540  
 1237 ccatctgccc ggcgtcacg gccttggccg tggccgcctt cacccttagct tcaatcttac 72600  
 1238 ggggtggccac gttacataag ggcggaaacgg cagctgcgtt tttggcctcc tttcgggtt 72660  
 1239 tagagatgac ggggtcgag ccggacctgg tgggatcccc agaatttatac agcttttga 72720  
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 1241 cttttttggg ggcgcgcgc tttggacgcg tggaaagacat ggcagactact acgcattaca 72840  
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 1245 cccggcggca atcatagtc taaaaagagg gcggtacgga gggggccgcg gagggggttt 73080  
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 1250 taagttgaa ataataccaa aaaacaactc atctcgat tgcgttgcgca acaaatttcc 73380  
 1251 cgtcggtgc aaaccggggg aacctctagt cgtggccctg ggactaaaaa ttatccggc 73440  
 1252 gccccaggtgc gcatctttc tcagcgagc gcccggat gagggttattt accacacccg 73500  
 1253 actttatagtc caagggtatc gtggagaaat aaaactcatc gttctcaata agactaaaca 73560  
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 1278 attaaactct gcctggccgc caagcgcctt ggcggggcc caaggttgg accgttgatg 75060  
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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/831,000

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Input Set : A:\53683 seq listing.txt  
 Output Set: N:\CRF3\05212001\I831000.raw

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 1327 gtttgcgtt ttttgcgtt ttttgcgtt ttttgcgtt ttttgcgtt ttttgcgtt 78000  
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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/831,000

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TIME: 08:37:42

Input Set : A:\53683 seq listing.txt

Output Set: N:\CRF3\05212001\I831000.raw

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 1331 caacccgagg tggcacgga tcgacagctt accgctatacg tcaagtctgg cgggogcaga 78240  
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 1337 ttcttggaga atcagggtga ggttagcctg gtgaagcgc taacttacct cgtgtgtata 78600  
 1338 aataaccgcg tggcgaggc ggcgaacctg gcgggagagg tgaaactgaa ttttaaactc 78660  
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## RAW SEQUENCE LISTING

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1548 agcaggcaca ggcacgaccc cacaatataa gaaacgtgaa cccatggaa gtcacacccg 91260  
1549 agggtggatg ccatagaacc ggcgttaata agaaacgcg agatgtgc cgttacatcc 91320  
1550 acctggccgc agagccaggc cggtagccca aatatacaga atagaaaaa cagccatgt 91380  
1551 aagccaacccg cggcccgagga gaatataatg ttctcaacgc taatcagggg ctctacaaaa 91440  
1552 tacagcgtatg gataaaataaa acacagaata aacggggaa cggagaccgt cccgctcata 91500  
1553 aaagatagcc aggcggggca cgcctccgac gtgtacgtgc ccatggcgcg ggtttaaaa 91560  
1554 caacgggttg aacgtcgccg gaggggtttt ggtttttctt ttccggcgc tgggtgagct 91620  
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1556 ggcgcggcccg tctgtcggtt cggcaccgtc ctcggcaatt gggacgcact gctttttaa 91740  
1557 gtccagggtca ggcgttctcg gaggggcacgg gagctcagga accccctcg gatcggcacc 91800  
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1559 gacgccccac ctgacgtcag caaggctatc tgcgtcgcc aggcctcaa ctccagaat 91920  
1560 ctcatggcg tggcagcgaa aaccaggca aaaaatccc ggaatcttac atgcgttcaa 91980  
1561 tgcggccacc agagactcta aactcacatg agtgcgtcagg tcgctagaaa ccacacccac 92040  
1562 gtccagcttt ctgcgttccatcg cgcgttccatcg cttggcgtcc ggggtgtcgg gttttttttt 92100  
1563 aataatttta ctaaccccgatcg cggccgtaaa cgtggcaact gccagcgatcg cgttacatcg 92160  
1564 gacgggtgacc acctgttgg ccctgggtt ctgcgtccatcg agccacttta acaacaaatcg 92220  
1565 cagcgttta accgtaaaggc acaggcgatt ccccggtcccg gcctgtctca gcctgtcg 92280  
1566 gaaacgggggtt aggttgggtt cgtccacgcg gctcttgc acgggtgtcg tttttttttt 92340  
1567 cccgttaggcg atgggtgtcc taacaaactcg cggctttccct tccggcgtccg actcgcccc 92400  
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1569 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 92520  
1570 aagatataacc atcagcgccg ccagtgcattt tttttttttt tttttttttt tttttttttt tttttttttt 92580  
1571 cccacgcgtg gagagcgcg taaggacggg gggccctgcg tggccgtca tctgtataac 92640  
1572 gcctttctta acgatgcctt taatgtggc gtaaaccctg ctaatgtgc caagcgcac 92700  
E--> 1573 gacgtccacc ctggcgcgtt aatgaaacgcg gacaggcatg gctaaggcga aatggcacc 92761

92760

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1576 tgaacggatg tgacatattc agaattatca cgctaaaaa agttcacact cttggcactc 92940  
1577 gtatacgcaca agggacacgc gtttgggggg cgggcaccga acaggggcgg tatgtttatt 93000  
1578 gactttagaa tcctgtcggc cggtgcctgc aaaaactgtc cgatgtctcc gacgttcacc 93060  
1579 atggtcacgt ctgcgtctt ggaacgaata aacagagtct ctatctccac gggttcgcga 93120  
1580 aagaggccgt ggatgtatgc gacggagggg gattcgtctc gggagatcat ggtgttgtac 93180  
1581 agcaagctgg cggccctggt gtgttagcagc tcgtccctgg agatgttagtc gttagccagg 93240  
1582 cacaccccgcc gcatgattcc gcgaaggcga aaaagtccata tagagtaaaa tgaacttata 93300  
1583 aagtatatcc ctgcataac caggaacacg agcaccttc cggcccggt ggtggcctt 93360  
1584 cgcactcggt aatgcagcca gtaatcttc ttgcgcagg tagcgtcctc gactatttt 93420  
1585 ttggcataaaa tcattaagtc ccccgattt ccgcggaaaaa ataagttcag tatgttggca 93480  
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1587 tgattgtcga actcttaac taggtcttcg atgttaaagt ttaccagact ctctgccata 93600  
1588 cccaaaaatg tgaagagaaa ctgtaaaac tccctatccg tgggactcaa tagtgcgcacc 93660  
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1601 caatgctgog ccccgatgtc tcccatctt ccaagggggg gtgggacggc ttaacgcgt 94440  
1602 cccacgtttt ccagtggaaac acacccttagt ccaatcgact cgcgtcccat ccacgaaacg 94500  
1603 gagtccccctc gccgagtaaa acaatctcat gactggttt caccggcgtt aataacattt 94560  
1604 cctgaaaaat ctccacgtcc agttggcgc tctcggcgtc aaggtagcca aagcccagtt 94620  
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1607 cggcctccac ggcgttccatcg agcgttcaa aaccaaaatgt tacatcccccc ttcccaggct 94800  
1608 ccacaccaga ctctccctg tgggttctga ggcacttttgg taggctaatg ttgccaagt 94860  
1609 tacacacggc agcctgaccc tcgggttgc gcacgttcc cgcacagaga ttgaaacagt 94920  
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1611 cgtagggact gccggctta atgacagtgt taataagggc atacatcattt gatttttaacg 95040  
1612 gcaacgagct agagtgtttt ccagcgccca ctgtctgtt gtattcaatc tcaaattcgg 95100  
1613 caccgttagat ttttaggaga tttggcgcca cctctggcgc aaacagggtgc cactggccat 95160  
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1615 tttgtacaccg ctccgttccatc tccggcatcaaaa atctgtatgtat 95280  
1616 gccatagttc catgttaggcg ctggcaccat caggacggat attgttacgt ttgaaatacc 95340  
1617 caacgtggc gtttattaaat tttaaacacgc tgggtgttcc gcaaaaagacg 95400  
1618 agacatctat cccacgcct gacttgcgtt cggaaagggg ggacatttcc tcatgttagt 95460  
1619 ctttgggggt tttgttccatcg gtcggcatgg acggctttaa aataaaacacg cttagaaagct 95520  
1620 gaccccgccg aagccggct gacccatata caggcgttgc gacgcacaca atctgtgacg 95580  
1621 agatgtatg gaacgcgtaa ccaaccaggat acatctcatc cagctccgtt tcgtctccca 95640  
1622 ccaggtgtctt gagggtctcc cgaaacacgc gaaattttt acactgacag gcccacaaaaa 95700

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Input Set : A:\53683 seq listing.txt  
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## RAW SEQUENCE LISTING

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Input Set : A:\53683 seq listing.txt

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1721 caagcaggtc ctagaactcg atctgcaact gataccgtta catacggtca tcagcgaagg 101640  
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 1723 gtcaatgagg gccacgcacg cagatgcgca aaaaaactg gcgtcggctt tcaacgtcga 101760  
 1724 aggtcacag atttcgtcca gcgaagcga aatatcagtc cgggcgtga aggaacagat 101820  
 1725 cgccaaccac ctgagttccag gcttttagc ggtctactcc gcggacgagg taaaacatct 101880  
 1726 acgggataaa attcagacc taaaaacagg catcggcag cgcaacaaag aatccaaca 101940  
 1727 ggaagaactg tttttttagt ccattgtcac agccctggac acgttccaaac cccctccgaa 102000  
 1728 aacggcattt ccaatggaga tctttccgca cctgtaaaacc gaagttatgc tcgaccac 102060  
 1729 ggcgtccata accaccaggtaaaccggc cgcaccggaa gcccctaaca attacctgg 102120  
 1730 gaccccccggcc gaccaaggaa cgcacattac caacattca aactttcat ccatcgtggc 102180  
 1731 aaatatcata tccacgttaa aaatcctaac gtacgcgaaa aacgacatgc aattaaacgt 102240  
 1732 aacggccatg gcaacgtaca ggcgtcagct gttgtacctc ggaggcgagt tagcaaccat 102300  
 1733 cttaatttta gagtggccat acggaaaccgt gcccacgggtt caagaactgc ccctcgtggc 102360  
 1734 gggggcgaaa gcaaaaatgg aatcgtaac aaaaatggaa aagaaccaac aggtctcg 102420  
 1735 ccaaatactg ggagaccccg aaacgttact tgacacaata accgcacat cggagatga 102480  
 1736 gaacccggtc cgcgcctatgt ccattaccgt actggagacc tacattacaa agcaggcgc 102540  
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 1738 ggcattatcg ggtcggttca tataatgtc gctaaacaac acgcggctcg ataacatata 102660  
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 1747 agactttta cagtcggcac cgtcgtcaaa ggcccgaaaa ttgcgcgaaa aacacatcg 103200  
 1748 gacgctgatc acccaattca acggccacga gcgaccgcg tccgaggcc cccgcgttcc 103260  
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 1752 tcctgttacg gttggaccaa agctggcg 103500  
 1753 cgacatccctc acgcagaagc tggatctct gcttccaaac gggcccggtt tcagaccc 103560  
 1754 acgttttgc tggatcgccg cctatcaaacc acgcgtaaac gcgttctaa aaccatagg 103620  
 1755 cctgcccattt gtcgcatttca tggcgacaa gatccatcac caatgc 103680  
 1756 cgcggcgaa tccgcagacc ttcaacaggc cacgggtgg 103740  
 1757 gggcaatac tgcgatccat gcaagtcg 103800  
 1758 cgtaaatcg gaggcccg 103860  
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 1760 cgtcgaggac ttccatcg 103980  
 1761 tgcgtccatcg agagcgaaat ttcgacact agaggcc 104040  
 1762 cccgcattcc acccgatcg 104100  
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 1764 ttggatcgac acggatcg 104220  
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 1767 tctacacgtt tggactgt 104400  
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1772 aggcttctcg gacataggca caaaaactcg cgagcttcag gcttacattt agtacaaaaaa 104700  
1773 acatgttctg gaggattttg aaacaacccca gcctaaacgtc tttcaacgtc tcccgctatc 104760  
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1776 gaccgtcgat cccggaaaaac caactcacgt cccggcgcac ggaggagccc ctctgcaccc 104940  
1777 ccagatcacg tactcaaacg tcctagagge gttgtttca ttatgttcca ccacgcataac 105000  
1778 cccgggttccg acggcccccg gtctggaaat cgcaaccagg gcacggcccg gggcagaggc 105060  
1779 cgcacgtgg atggacagac agtggcccg catcgctcg acgttccaaag acgttctcg 105120  
1780 cacgtacgaa cacaccaccc cccacgc当地 ccgggacgcg gcatttaaca catttttggc 105180  
1781 gatgtgcgtt ttacgc当地 tcatcagggg cgctagcaga gccgtgacgc tcccgaaagtt 105240  
1782 accgagcacc gccgtcgatt ttccagaaga gatcgttcta acacccaggg aatgcacaaac 105300  
1783 actggtcacc gccatgtggc ccaccctggc ggccgc当地 ttacgattaa aatcctactc 105360  
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1785 aacgcttagag gcccagggtca aaaacggccc acataacacc ccgcctcagtg tgagatgtt 105480  
1786 tgccaaaaca gaggcaattt cgtatttccc ggcgc当地atgg cagtcagcga acctagagca 105540  
1787 gagcctgtgg ggacagacgg actttttgca aatctgc当地 aacaatcaac gcaaggccag 105600  
1788 ggtggccggcc gtcacctggg cgctc当地acgcg gatagacgcg gtgggtttgg accaactgtg 105660  
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1790 cctacacctg accacatttgc gcccgc当地ggg tccaaacgc当地 aggc当地gagaaa cgaccaccga 105780  
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1794 cggcggcatg gggcttccca caccatccct ggaatgc当地tgc cccgacgc当地tgc agcccttca 106020  
1795 aacgctgtat aacgcacccca gcaaaaccgtt gcccatttggaa acgttccccc catcccttcc 106080  
1796 cccgc当地acgcg gaggc当地acgg tcttctgag acaggc当地acag tggctatcc acgttccac 106140  
1797 accacacgaa gccggccggg cgtcacttcc gccgttccg tgggtcatag accttgc当地aaa 106200  
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1812 caccccc当地acac ctc当地agagg ggccacggga gcctc当地acgc当地 aacactccaa ccacgc当地ca 107100  
1813 cataaaacgtc ccctctagcc aaggtaaaa aacagtc当地ac gggc当地gaaa atcccgccct 107160  
1814 tcaaaccagca actccccacg cccccc当地accc aaccgc当地tca aaccgc当地ca ttc当地ataacac 107220  
1815 gctcccccaga acggacgc当地cc ggttgc当地tca cgacgc当地atcg gagggtggat cgaccccaac 107280  
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1817 ctccagggtgg accgccccccgc tcggtccaaac catagagatt catc当地actgg aacacccccc 107400  
1818 aattctcaaa aatataacat cactcaccgt ccccaacttcc agagtc当地cccaatccctcc 107460

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1820 caagaatgtg ttaatgcgt ttattcaaaa cgtacgaaga aaacttcaag cgtcgctcga 107580  
1821 cgctctatcc gaggctattt ccagaataaa gtttttatat ctgttaacgc cccatctcac 107640  
1822 ttgtttttt tattttgaga cgagcgtt cgttccagag tagttgcgtc gctagggtat 107700  
1823 aacgaagtgg accctatgcc agaagacgccc acgctccccc gtccggccgc accgggcgcg 107760  
1824 gggcccatcg agcctatcaa tgaatggggc ccgctggaga tcgttagtaaa gctatttgc 107820  
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1828 agataattac gtttcgcgt ggcatactgg gccggagaca tgcacccctg gggaaagggtt 108060  
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1837 cgcactcgag gcacaccacc accctcgagg ctggcacgtt cttctccagt acgctccctgg 108600  
1838 ccaccacctg ggaccaaaaca ggttagagaga tacacggaaa cagtagtta tacgccaata 108660  
1839 cttttgcacc caggtcgccg gatactccg tctcggtcga ctccctatg gcaacaccaa 108720  
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1919 ataaacaacc ccttgcagtt aatgcacatc gtaacgagac ggaatccaaa gaacacgccc 113520  
1920 gatcttaaga ccacgggcac gtgttttgg gttccggggg cgttacgatg gaagttcatc 113580  
1921 accaagtatac ccatcaacact gttacaaaag cgtaaagata atcggttac aataaacaat 113640  
1922 aaaaaatagt ggacgaagtt acatccgac atacaagcgg acccaaaaaa acaccccaac 113700  
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1931 agtaacccccc attgcacccgc gtgtcgctg ctaatgttt tttaaaattac attgtgcgtt 114240  
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1933 cacgggaacg cgcgctgacc gcctcccca aatcacaaca cgggactaca aagcctagtg 114360  
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1935 gtaccttagag ctccccctt tacttcaaaa aacagcggtg gtttatttga ccacacgtt 114480  
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1969 ccccaagacta gccgcacaga ggtgcgactg cctgccaagg ctcttggcgc ctctttata 116520  
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1974 ccccaaacat catccagcgc atagagggtt tggctgagct gcctatctgg ggattccca 116820  
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1976 gtgcctgcgt gtgtggtaag ggagttccccc taattaaaat attatattaa taaataaaacc 116940  
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 2232 taattaaaca aagttaaag ataaactgtttt ctttaggaag tgcgtatggg tcaatgtgt 132300  
 2233 tccaaatagg gcaagggtta cattaaactgt tgcctagcgg ccggggcccg aggcggcccg 132360  
 2234 cggcgccgc cggccggcccg cggccgcattt cttgcggcccg gggcgagggt ccccgccgc 132420  
 2235 ccccccgggc cggcgccgc ggcggcccg gcctcccccgc gctccggcc cttccggcc 132480  
 2236 cggccccggg cccgcggcccg cggcccccgg cggcccccgc cggcgccgc gggcgcc 132540  
 2237 gtttgcgggg gccgggggtt cgggggggggg cggggggccgc cccgggggtgc cgctccgc 132600  
 2238 gggccggccg actcccccgg gcccggccgt cggccgcggc cggccggccgc cggccccccg 132660  
 2239 cggccccccgg gcccggggcc ccacaagccg cggccgcggc ctcccgatgc cggggggccg 132720  
 2240 cggccccggca tggcggtctt cggccggctt cccctccccc acggccggcc gaaagggtgg 132780  
 2241 ctccgcgcgc cgggggggggg ggcggggggcc cggggggccgc cggccgggggtc cggcgccgg 132840  
 2242 cgcgaccggag gggcccccgg gaaacggggga tcgggaaaac gcgaggggag cggggggacag 132900  
 2243 gggacggcgt gtgcgtgtt gtgagacacc gggtaacgtt gcctgcctgc tcgctggcct 132960  
 2244 gcttgcgtag gggacagtag gcctgcgtgc tcgctggcct gcttgcgtag gggacagtag 133020  
 2245 gcttgcgtgc tgaggggaca gtggcctgc ttgctcgctt gcctgcgtgc tgaggggaca 133080  
 2246 gtagggtgc tggctgtca gtagggtgc tcgctggcct gcttgcgtgc tcgctggcct 133140  
 2247 gcttgcgtgc tcgctggcct gcttgcgtgc tcgctggcct gcttgcgtgc tcgctggcct 133200  
 2248 gcttgcgtgc tcgctggcct gcttgcgtgc tcgctggcct gcttgcgtgc tcgctggcct 133260  
 2249 gcttgcgtag gggacagtag gcctgcgtgc ttgctaaagg gacggtaacgc ctgcctgt 133320  
 2250 gcttgcgtat agggctgtgt gctgtctgtt agggctgtgtt ggctgtctgtt agggctgtgt 133380  
 2251 gcttgcgtat agggctgtgt gctgtctgtt agggctgtgtt ggctgtctgtt agggctgtgt 133440  
 2252 gcttgcgtat agggctgtgt gctgtctgtt agggctgtgtt ggctgtctgtt agggctgtgt 133500  
 2253 gcttgcgtat agggctgtgt gctgtctgtt agggctgtgtt ggctgtctgtt agggctgtgt 133560  
 2254 gcttaggtggg cccgttgcct gctactaggg ctgctgtgc gctggggagaa cagagtaggg 133620  
 2255 ctggccggccca gctgcgtgcg agggctccgg agggccacgg gaggacacgg gaccggggcc 133680  
 2256 tctcccccggc cccggacccgg gggacccgg cccagatct 133719  
 5987 <210> SEQ ID NO: 38  
 5988 <211> LENGTH: 2115  
 5989 <212> TYPE: DNA

P. 49

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/831,000

DATE: 05/21/2001  
TIME: 08:37:43

Input Set : A:\53683 seq listing.txt  
Output Set: N:\CRF3\05212001\I831000.raw

5990 <213> ORGANISM: Macaca mulatta rhadinovirus 17577  
 5992 <220> FEATURE:  
 5993 <221> NAME/KEY: CDS  
 5994 <222> LOCATION: (1)..(2115)  
 5996 <400> SEQUENCE: 38  
 5997 atg gcg cgt att agt ttt ata ttt ttt act ata ata agg tgt tct 48  
 5998 Met Ala Arg Ile Ser Phe Ile Phe Phe Thr Ile Ile Arg Cys Ser  
 5999 1 5 10 15  
 6001 gta acg gac aaa tac gtg tat gat gaa aaa tca aat gta gag ttg gaa 96  
 6002 Val Thr Asp Lys Tyr Val Tyr Asp Glu Lys Ser Asn Val Glu Leu Glu  
 6003 20 25 30  
 6005 ttt aat gga aca att tac caa att aat tgg aga aac gta agc aaa gaa 144  
 6006 Phe Asn Gly Thr Ile Tyr Gln Ile Asn Trp Arg Asn Val Ser Lys Glu  
 6007 35 40 45  
 6009 tta aca tct att gta atg gaa gat gcg tgg tac gat tct tta ctg ctg 192  
 6010 Leu Thr Ser Ile Val Met Glu Asp Ala Trp Tyr Asp Ser Leu Leu Leu  
 6011 50 55 60  
 6013 gaa cca ttg tct gtg act ttg gaa aaa aga aaa agt ttg ctg cga tca 240  
 6014 Glu Pro Leu Ser Val Thr Leu Glu Lys Arg Lys Ser Leu Leu Arg Ser  
 6015 65 70 75 80  
 6017 agt ata gtt aat gtg cat aat aat gac tat aca ttt tgt aaa tct tca 288  
 6018 Ser Ile Val Asn Val His Asn Asn Asp Tyr Thr Phe Cys Lys Ser Ser  
 6019 85 90 95  
 6021 agt gac cat gta att aac ctt acg gtg gat ttt aat tac agt tct ttg 336  
 6022 Ser Asp His Val Ile Asn Leu Thr Val Asp Phe Asn Tyr Ser Ser Leu  
 6023 100 105 110  
 6025 cca ggt ttt act ggg aat ttt aat gta atg aca cat gct tta aca caa 384  
 6026 Pro Gly Phe Thr Gly Asn Phe Asn Val Met Thr His Ala Leu Thr Gln  
 6027 115 120 125  
 6029 ggc gtt tta tta acg aaa cgt gaa tta ttt acc aac tca aca aac att 432  
 6030 Gly Val Leu Leu Thr Lys Arg Glu Leu Phe Thr Asn Ser Thr Asn Ile  
 6031 130 135 140  
 6033 atg gat ctt ttt tac gcg gaa aaa ata aat gca gaa atg ttc aag att 480  
 6034 Met Asp Leu Phe Tyr Ala Glu Lys Ile Asn Ala Glu Met Phe Lys Ile  
 6035 145 150 155 160  
 6037 act ttt gat tat tcc aat gta ata att tcc ggc att ata aca gaa aat 528  
 6038 Thr Phe Asp Tyr Ser Asn Val Ile Ile Ser Gly Ile Ile Thr Glu Asn  
 6039 165 170 175  
 6041 tgg ata tta gta tca gtt aca aat tca agt gta aaa tca aat atg caa 576  
 6042 Trp Ile Leu Val Ser Val Thr Asn Ser Ser Val Lys Ser Asn Met Gln  
 6043 180 185 190  
 6045 tgt gtt gca ctg ttg ttt ggt gtt cct agc aca ttt cca gcg tta aaa 624  
 6046 Cys Val Ala Leu Leu Phe Gly Val Pro Ser Thr Phe Pro Ala Leu Lys  
 6047 195 200 205  
 6049 ggc tat gta tct tat cgt gat tta ttg gtc gtt aaa aat tca aac tat 672  
 6050 Gly Tyr Val Ser Tyr Arg Asp Leu Leu Val Val Lys Asn Ser Asn Tyr  
 6051 210 215 220  
 6053 gct ctg ggt gta att gcg ccg aaa tct tat aat act ctt gat ttg gca 720  
 6054 Ala Leu Gly Val Ile Ala Pro Lys Ser Tyr Asn Thr Leu Asp Leu Ala

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/831,000

DATE: 05/21/2001

TIME: 08:37:43

Input Set : A:\53683 seq listing.txt  
 Output Set: N:\CRF3\05212001\I831000.raw

6055	225	230	235	240	
6057	ttt tta cca aaa aat ttt aca gaa atg ttt gtt tca gtt ata gat agt				768
6058	Phe Leu Pro Lys Asn Phe Thr Glu Met Phe Val Ser Val Ile Asp Ser				
6059	245	250	255		
6061	ccg ctt aat gcc att gat tat ctc aaa gga aaa ctt ttg gct att gaa				816
6062	Pro Leu Asn Ala Ile Asp Tyr Leu Lys Gly Lys Leu Leu Ala Ile Glu				
6063	260	265	270		
6065	gca aag ggt gcc tgtcaa aat cct tca aat gaa aat gat atc tta tct				864
6066	Ala Lys Gly Ala Cys Gln Asn Pro Ser Asn Glu Asn Asp Ile Leu Ser				
6067	275	280	285		
6069	ttc ttt ttt gaa gtt act gca gta aat ttt tta ttt ata aaa aat ctt				912
6070	Phe Phe Glu Val Thr Ala Val Asn Phe Leu Phe Ile Lys Asn Leu				
6071	290	295	300		
6073	caa aag cag caa tta gtt aac gtt ggg tgt gtt gta cgg cat gtt gca				960
6074	Gln Lys Gln Gln Leu Val Asn Val Gly Cys Val Val Arg His Val Ala				
6075	305	310	315	320	
6077	gcg tta gaa agt tta atg cat tta tta agg ctc tgc tac cca acg ttt				1008
6078	Ala Leu Glu Ser Leu Met His Leu Leu Arg Leu Cys Tyr Pro Thr Phe				
6079	325	330	335		
6081	aag tta tat gag cta aat ttg gaa acg ttg tgc cat att gca gag tcc				1056
6082	Lys Leu Tyr Glu Leu Asn Leu Glu Thr Leu Ser His Ile Ala Glu Ser				
6083	340	345	350		
6085	cag gtt ttt aac ttg ccg gca aat agc atg tta tcg tta tca gta aat				1104
6086	Gln Val Phe Asn Leu Pro Ala Asn Ser Met Leu Ser Leu Ser Val Asn				
6087	355	360	365		
6089	gat caa gag gtc gta ttt tca atg ttt aaa att gta tat aat aca cct				1152
6090	Asp Gln Glu Val Val Phe Ser Met Phe Lys Ile Val Tyr Asn Thr Pro				
6091	370	375	380		
6093	aag gtt ggt ggt aaa att cta aac gaa att gta tat att act aat tac				1200
6094	Lys Val Gly Gly Lys Ile Leu Asn Glu Ile Val Tyr Ile Thr Asn Tyr				
6095	385	390	395	400	
6097	atg tac acc aaa tac agt gaa aat tat cag cta acc aac aca ttt agg				1248
6098	Met Tyr Thr Lys Tyr Ser Glu Asn Tyr Gln Leu Thr Asn Thr Phe Arg				
6099	405	410	415		
6101	cgg aat gta atg aac atg tat gaa gtt tta aca aca att aaa tta aac				1296
6102	Arg Asn Val Met Asn Met Tyr Glu Val Leu Thr Thr Ile Lys Leu Asn				
6103	420	425	430		
6105	gtc aca gat tct tct gtg ttt tat ccg tat ata ttg ttc aca tcc atg				1344
6106	Val Thr Asp Ser Ser Val Phe Tyr Pro Tyr Ile Leu Phe Thr Ser Met				
6107	435	440	445		
6109	tgt aat aat gta gag ata tca tat atg att aat caa ata gca aag ccc				1392
6110	Cys Asn Asn Val Glu Ile Ser Tyr Met Ile Asn Gln Ile Ala Lys Pro				
6111	450	455	460		
6113	gat gac atc acc ata ttt cgc gtg ttt tcg cct tgt ttt tta agc tta				1440
6114	Asp Asp Ile Thr Ile Phe Arg Val Phe Ser Pro Cys Phe Leu Ser Leu				
6115	465	470	475	480	
6117	agg ttt gat tta gat gaa aac aag cta cga tcc gac gca ccg cag acg				1488
6118	Arg Phe Asp Leu Asp Glu Asn Lys Leu Arg Ser Asp Ala Pro Gln Thr				
6119	485	490	495		

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/831,000

DATE: 05/21/2001

TIME: 08:37:43

Input Set : A:\53683 seq listing.txt  
 Output Set: N:\CRF3\05212001\I831000.raw

6121 tca aaa aga acc ggc tcg gaa ctg gca caa gga gcg tct ggt ttt tgg	1536
6122 Ser Lys Arg Thr Gly Ser Glu Leu Ala Gln Gly Ala Ser Gly Phe Trp	
6123 500 505 510	
6125 cgg ctg ttg cac gct ttt cac gcc acg cgt ata aac gag ttt tca gtc	1584
6126 Arg Leu Leu His Ala Phe His Ala Thr Arg Ile Asn Glu Phe Ser Val	
6127 515 520 525	
6129 ata aat tgt acc agg ctg gca tgg aag caa gta acc ggc ctg atg ccg	1632
6130 Ile Asn Cys Thr Arg Leu Ala Trp Lys Gln Val Thr Ala Leu Met Pro	
6131 530 535 540	
6133 ctt acg aac atc acg tac gtc ata agc tcc gtc cgc cct gat cac gct	1680
6134 Leu Thr Asn Ile Thr Tyr Val Ile Ser Ser Val Arg Pro Asp His Ala	
6135 545. 550 555 560	
6137 cgc gtt tac gag gtt tcg gag gtc ttc ctt aac agc ggc atg ttt gtc	1728
6138 Arg Val Tyr Glu Val Ser Glu Val Phe Leu Asn Ser Ala Met Phe Val	
6139 565 570 575	
6141 tcg gcc gtt tat cca aat tgt tct cat ttt aca ccg ccc ggt acc acc gcc	1776
6142 Ser Ala Val Tyr Pro Asn Cys Ser His Phe Thr Pro Pro Gly Thr Ala	
6143 580 585 590	
6145 cta cac att ccg ata ttg tat aac ttt tcc gcc ccg agg ata gga tgt	1824
6146 Leu His Ile Pro Ile Leu Tyr Asn Phe Ser Ala Pro Arg Ile Gly Cys	
6147 595 600 605	
6149 ccg ctg tgt gat tcg att gtt ttg agc tat gat gag aac cag gga cta	1872
6150 Pro Leu Cys Asp Ser Ile Val Leu Ser Tyr Asp Glu Asn Gln Gly Leu	
6151 610 615 620	
6153 cag acc atg atg tac gtg tca aac ccc aca gtt caa gcc aac ctg ttt	1920
6154 Gln Thr Met Met Tyr Val Ser Asn Pro Thr Val Gln Ala Asn Leu Phe	
6155 625 630 635 640	
6157 tcc ccg tat tct cct ttc ttt gac aac gat aat ttt cat atc cat tat	1968
6158 Ser Pro Tyr Ser Pro Phe Phe Asp Asn Asp Asn Phe His Ile His Tyr	
6159 645 650 655	
6161 ttg tgg tta atg aac aac ggt acc gtt gtg gaa att ccg gga ttg tac	2016
6162 Leu Trp Leu Met Asn Asn Gly Thr Val Val Glu Ile Arg Gly Leu Tyr	
6163 660 665 670	
6165 aga aga cac gca ctc agt gct att gca tta gta ttt gct ttt att gga	2064
6166 Arg Arg His Ala Leu Ser Ala Ile Ala Leu Val Phe Ala Phe Ile Gly	
6167 675 680 685	
6169 aca atg tct gct ctg tat ttt ctg ttt aag ctg ttt tcc atc ctg gcc	2112
6170 Thr Met Ser Ala Leu Tyr Phe Leu Phe Lys Leu Phe Ser Ile Leu Ala	
6171 690 695 700	
6173 taa	2115

E--> 6175 ~~705~~

7909 <210> SEQ ID NO: 58  
 7910 <211> LENGTH: 1395  
 7911 <212> TYPE: DNA  
 7912 <213> ORGANISM: Macaca mulatta rhadinovirus 17577  
 7914 <220> FEATURE:  
 7915 <221> NAME/KEY: CDS  
 7916 <222> LOCATION: (1)..(1395)  
 7918 <400> SEQUENCE: 58

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/831,000

DATE: 05/21/2001

TIME: 08:37:43

Input Set : A:\53683 seq listing.txt

Output Set: N:\CRF3\05212001\I831000.raw

7919 atg gat gcg cat ggt ctc aac cgg cga tcc gtc gcg ggt cag tgc gac	48
7920 Met Asp Ala His Gly Leu Asn Arg Arg Ser Val Ala Gly Gln Cys Asp	
7921 1 5 10 15	
7923 ggg ttg ttt cac gtg ata ctt ccg cga ggg ttt atc ctc gcg aac aat	96
7924 Gly Leu Phe His Val Ile Leu Pro Arg Gly Phe Ile Leu Ala Asn Asn	
7925 20 25 30	
7927 att acg tgc ggt gaa cgg cag ccg ttt ttt gca cac act tgg ttc gct	144
7928 Ile Thr Cys Gly Glu Arg Gln Arg Phe Phe Ala His Thr Trp Phe Ala	
7929 35 40 45	
7931 gca tct gga cgc acg tct aag act tta tac gtg tgg gga cgg gta ttt	192
7932 Ala Ser Gly Arg Thr Ser Lys Thr Leu Tyr Val Trp Gly Arg Val Phe	
7933 50 55 60	
7935 caa aac acc gac ccg ggc cgc ggg gac ggt ccg tcc ggg ccg tgg tcc	240
7936 Gln Asn Thr Asp Pro Gly Arg Gly Asp Gly Pro Ser Gly Pro Trp Ser	
7937 65 70 75 80	
7939 gga ctg gcg att agt ctg cct ctg ttt acc aca aat gga aaa ttt cat	288
7940 Gly Leu Ala Ile Ser Leu Pro Leu Phe Thr Thr Asn Gly Lys Phe His	
7941 85 90 95	
7943 ccg ttt gat gta gtt ata ctc aag gcc gat acg cct gac tct gga agc	336
7944 Pro Phe Asp Val Val Ile Leu Lys Ala Asp Thr Pro Asp Ser Gly Ser	
7945 100 105 110	
7947 tcg tgg acc gtg aag ttc ttg tat atg tca tta att gcg gct tac aga	384
7948 Ser Trp Thr Val Lys Phe Leu Tyr Met Ser Leu Ile Ala Ala Tyr Arg	
7949 115 120 125	
7951 aac gca atg cga ggt tta aaa gat aaa gtt tcg caa tgt acc gat gcc	432
7952 Asn Ala Met Arg Gly Leu Lys Asp Lys Val Ser Gln Cys Thr Asp Ala	
7953 130 135 140	
7955 gcc gtt gac ggt gag gtt cat cct cta acc gtc tta aaa gaa gcg ttt	480
7956 Ala Val Asp Gly Glu Val His Pro Leu Thr Val Leu Lys Glu Ala Leu	
7957 145 150 155 160	
7959 gta tca ccg gac act gct acg cga ccc gtg tcc gcg tgc aac cct cta	528
7960 Val Ser Pro Asp Thr Ala Thr Arg Pro Val Ser Ala Cys Asn Pro Leu	
7961 165 170 175	
7963 cag atg ttg acc gga ctc tta cag tct agg gta ccg gac gac tac gtg	576
7964 Gln Met Leu Thr Gly Leu Leu Gln Ser Arg Val Arg Asp Asp Tyr Val	
7965 180 185 190	
7967 aca cac cac cgt ccg ctc gaa cgc cca ggt aat gtg agg gga caa gta	624
7968 Thr His His Arg Ala Leu Glu Arg Pro Gly Asn Val Arg Gly Gln Val	
7969 195 200 205	
7971 atc gcc ccg acg cgc acc gag atg cca aac gga tcg cca agt cgt gta	672
7972 Ile Ala Pro Thr Arg Thr Glu Met Pro Asn Gly Ser Pro Ser Arg Val	
7973 210 215 220	
7975 agg ctt gga ttc cgc cct ccc aaa caa gcc aac tat cca aag acg tgg	720
7976 Arg Leu Gly Phe Arg Pro Pro Lys Gln Ala Asn Tyr Pro Lys Thr Trp	
7977 225 230 235 240	
7979 gcg cag gcg cgt cac gtt ttc tcg tct ccg gca tat tac gtg tgc gta	768
7980 Ala Gln Ala Arg His Val Phe Ser Ser Arg Ala Tyr Tyr Val Cys Val	
7981 245 250 255	
7983 tat gat aac gaa cta gat acc aag tgg cag ccg caa gat ccg ccg	816

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/831,000

DATE: 05/21/2001

TIME: 08:37:43

Input Set : A:\53683 seq listing.txt  
 Output Set: N:\CRF3\05212001\I831000.raw

7984	Tyr	Asp	Asn	Glu	Glu	Leu	Asp	Thr	Lys	Trp	Gln	Arg	Gln	Asp	Pro	Arg		
7985	260					265					270							
7987	ccg	ttg	ccg	cta	gat	tgg	tcc	gat	ccg	gtc	gcg	tac	ctg	tta	gag	ggc	864	
7988	Pro	Leu	Pro	Leu	Asp	Trp	Ser	Asp	Pro	Val	Ala	Tyr	Leu	Leu	Glu	Gly		
7989	275					280					285							
7991	gat	ttg	ttt	tta	gga	gcc	aag	cag	aat	gcg	ttt	gtc	gat	tct	ata	gaa	912	
7992	Asp	Leu	Phe	Leu	Gly	Ala	Lys	Gln	Asn	Ala	Phe	Val	Asp	Ser	Ile	Glu		
7993	290					295					300							
7995	aag	acg	tgc	agg	tgt	cag	aac	tat	acc	att	aag	caa	ttt	ttt	ccg	gtt	960	
7996	Lys	Thr	Cys	Arg	Cys	Gln	Asn	Tyr	Thr	Ile	Lys	Gln	Phe	Phe	Pro	Val		
7997	305					310					315					320		
7999	ttg	ata	aat	agg	gac	aac	gaa	aca	gtc	gac	tta	att	aag	gag	cat	ttt		
8000	Leu	Ile	Asn	Arg	Asp	Asn	Glu	Thr	Val	Asp	Leu	Ile	Lys	Glu	His	Phe		
8001	325					330					335							
8003	ata	gag	gcg	tgc	ttc	gtg	att	aga	aac	cag	gtg	tca	gag	agg	agc	gct	1056	
8004	Ile	Glu	Ala	Cys	Phe	Val	Ile	Arg	Asn	Gln	Val	Ser	Glu	Arg	Ser	Ala		
8005	340					345					350							
8007	tgg	gta	aag	gcg	gcg	ctg	ttt	cgc	aac	gat	agt	aac	acg	tat	tgg	aag	1104	
8008	Trp	Val	Lys	Ala	Ala	Leu	Phe	Arg	Asn	Asp	Ser	Asn	Thr	Tyr	Trp	Lys		
8009	355					360					365							
8011	gat	gtt	ttg	gga	tta	tgg	gag	cat	ggg	cct	cat	aag	ctg	ggt	acg	gct	1152	
8012	Asp	Val	Leu	Gly	Leu	Trp	Glu	His	Gly	Pro	His	Lys	Leu	Gly	Thr	Ala		
8013	370					375					380							
8015	ata	aaa	cta	cca	aca	tcg	gaa	cct	tgc	aat	gcc	gac	gta	aac	tgg	agc	1200	
8016	Ile	Lys	Leu	Pro	Thr	Ser	Glu	Pro	Cys	Asn	Ala	Asp	Val	Asn	Trp	Ser		
8017	385					390					395					400		
8019	tgg	ctc	ctg	tgt	gac	gag	gat	ata	act	cg	tca	att	agc	ggg	cag	tct	1248	
8020	Trp	Leu	Leu	Cys	Asp	Glu	Asp	Ile	Thr	Arg	Ser	Ile	Ser	Gly	Gln	Ser		
8021	405					410					415							
8023	act	gtt	tgc	tta	gtt	gtc	tcg	cct	acc	ctg	acc	gcc	tgg	ctg	gtg	ctc	1296	
8024	Thr	Val	Cys	Leu	Val	Val	Ser	Pro	Thr	Leu	Thr	Ala	Trp	Leu	Val	Leu		
8025	420					425					430							
8027	ccg	ggg	ggc	ttt	gtt	att	aaa	ggc	cgc	tac	gac	cta	tca	agc	gag	gat	1344	
8028	Pro	Gly	Gly	Phe	Val	Ile	Lys	Gly	Arg	Tyr	Asp	Leu	Ser	Ser	Glu	Asp		
8029	435					440					445							
8031	tta	atg	ttt	gtg	gct	tcg	aga	tat	ggc	cac	cca	gcg	tcg	tca	cat	tct	1392	
8032	Leu	Met	Phe	Val	Ala	Ser	Arg	Tyr	Gly	His	Pro	Ala	Ser	Ser	His	Ser		
8033	450					455					460							
8035	taa																	
E-->	8037	465																
16028	<210>	SEQ ID NO:	148															
16029	<211>	LENGTH:	675															
16030	<212>	TYPE:	DNA															
16031	<213>	ORGANISM:	Macaca mulatta rhadinovirus	17577														
16033	<220>	FEATURE:																
16034	<221>	NAME/KEY:	CDS															
16035	<222>	LOCATION:	(1)..(675)															
16037	<400>	SEQUENCE:	148															
16038	atg	agt	tcc	gga	aaa	cgt	tta	gtt	gac	gag	ctg	tgc	gat	tta	gtt	gtc	48	

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/831,000

DATE: 05/21/2001

TIME: 08:37:45

Input Set : A:\53683 seq listing.txt

Output Set: N:\CRF3\05212001\I831000.raw

16039	Met	Ser	Ser	Gly	Lys	Arg	Leu	Val	Asp	Glu	Leu	Cys	Asp	Leu	Val	Val		
16040	1						5			10					15			
16042	tct	tac	ctg	gga	ccc	tct	gga	atc	tcc	ctg	gac	ttg	gag	agg	tgt	cag	96	
16043	Ser	Tyr	Leu	Gly	Pro	Ser	Gly	Ile	Ser	Leu	Asp	Leu	Glu	Arg	Cys	Gln		
16044					20				25					30				
16046	gac	ggg	gct	ccc	gta	tac	gct	aaa	ggc	ggg	gcg	gtc	ccc	gtg	tgc	acc	144	
16047	Asp	Gly	Ala	Pro	Val	Tyr	Ala	Lys	Gly	Gly	Ala	Val	Pro	Val	Cys	Thr		
16048					35				40				45					
16050	gtg	cgc	ctg	cag	cac	ggc	tgc	tat	cat	ctc	gag	ttt	gtg	tat	aag		192	
16051	Val	Arg	Leu	Gln	His	Gly	Cys	Val	Tyr	His	Leu	Glu	Phe	Val	Tyr	Lys		
16052					50				55			60						
16054	ttt	tgg	ctc	cac	aaa	cta	gag	aga	ctg	gcc	tac	ccg	ttt	gcc	ccg	tgt	240	
16055	Phe	Trp	Leu	His	Lys	Leu	Glu	Arg	Leu	Ala	Tyr	Pro	Phe	Ala	Pro	Cys		
16056					65				70			75			80			
16058	ttt	gta	att	atc	aac	aac	ggt	ttg	gcc	acc	acg	ctg	aaa	tgt	ttt	ttg	288	
16059	Phe	Val	Ile	Ile	Asn	Asn	Gly	Leu	Ala	Thr	Thr	Leu	Lys	Cys	Phe	Leu		
16060					85				90			95						
16062	tgt	aag	cca	cgt	gac	gcc	gat	gcc	cag	ttt	gga	aaa	aac	ctg	cct	ata	336	
16063	Cys	Lys	Pro	Arg	Asp	Ala	Asp	Ala	Gln	Phe	Gly	Lys	Asn	Leu	Pro	Ile		
16064					100				105			110						
16066	aat	tcg	gac	gtg	tat	ctt	gag	agg	aac	tcg	tcc	gtg	tcc	ctg	ggc	cag	384	
16067	Asn	Ser	Asp	Val	Tyr	Leu	Glu	Arg	Asn	Ser	Ser	Val	Ser	Leu	Gly	Gln		
16068					115				120			125						
16070	gac	gat	ttt	atg	aaa	ttt	aag	gca	cgt	ctg	gtt	ttc	tcc	gga	gac	cta	432	
16071	Asp	Asp	Phe	Met	Lys	Phe	Lys	Ala	Arg	Leu	Val	Phe	Ser	Gly	Asp	Leu		
16072					130				135			140						
16074	aac	gtt	tac	agc	tcc	atg	gtc	ata	tgc	cgc	acc	tac	ttt	acg	gag	cac	480	
16075	Asn	Val	Tyr	Ser	Ser	Met	Val	Ile	Cys	Arg	Thr	Tyr	Phe	Thr	Glu	His		
16076					145				150			155			160			
16078	cga	cag	gtt	tta	cag	ttt	ttg	gtc	gtg	act	cca	aag	agc	gct	aaa	cgg	528	
16079	Arg	Gln	Val	Leu	Gln	Phe	Leu	Val	Val	Thr	Pro	Lys	Ser	Ala	Lys	Arg		
16080					165				170			175						
16082	tta	aaa	acc	ctt	ctt	aga	acg	gtt	ttt	gcc	ctg	acg	ggt	cac	tcc	gac	576	
16083	Leu	Lys	Thr	Leu	Leu	Arg	Thr	Val	Phe	Ala	Leu	Thr	Gly	His	Ser	Asp		
16084					180				185			190						
16086	ggc	ctc	ggt	gca	ttt	agg	cga	acg	ggc	tcc	gtg	gcc	cgc	cct	tcg	ggg	624	
16087	Gly	Leu	Gly	Ala	Leu	Arg	Arg	Thr	Gly	Ser	Val	Ala	Arg	Pro	Ser	Gly		
16088					195				200			205						
16090	tcg	gag	ttg	aag	gat	att	ggg	cgc	gga	gag	cgt	gca	gct	atg	acc	aat	672	
16091	Ser	Glu	Leu	Lys	Asp	Ile	Gly	Arg	Gly	Glu	Arg	Ala	Ala	Met	Thr	Asn		
16092					210				215			220						
16094	taa															675		
E--> 16096	225																	
17824	<210>	SEQ ID NO:	179															
17825	<211>	LENGTH:	1387															
17826	<212>	TYPE:	DNA															
17827	<213>	ORGANISM:	Macaca mulatta rhadinovirus	17577														
17829	<400>	SEQUENCE:	179															
17830	cctagcggcc	ggggccggag	gcgcggccggcc	ggcgccggcc	ccggccggcc	ggccggccatct	60											

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/831,000

DATE: 05/21/2001  
TIME: 08:37:45

Input Set : A:\53683 seq listing.txt  
Output Set: N:\CRF3\05212001\I831000.raw

17831 tgcggccggg gcgagggtcc cccgcgcgcc ccccgccccc gcgcgcgggg cgccgcggc 120  
17832 ctccccggc tccccggccct cccgcgcgcgc ggcggccgc cccgcgcgcgc gccccggggc 180  
17833 gccccgcgc ggcgcgcggg cccgcgcggg ttcgcggggc cgggggtccc gcggggggggc 240  
17834 gggggcgcggc cccgggtggc cccgcgcggg cccggccac tcccgccggc gccccgggtcc 300  
17835 ggcggagccc ggcgggcggc cccgcgcggc cccggccggc cccggggccccc acaagccgc 360  
17836 gcgcgcggc cccgcgcggc ggcggccgc gcccggcatg gcggctctcc gccggctcc 420  
17837 ccccccac gccgcggcga aagggtggtct cccgcgcgc gggaggggggg cccggggccgg 480  
17838 gggcgctcg gcgggggcccg ggcgcggggc cccgggggaga acgggggatc 540  
17839 gggaaaacgc gaggggagcg ggggacaggg gacggcggtg gcgtgcttgc gggacaccgg 600  
17840 gtacggctgc ctgcctgctc gctggcctgc ttgcgtggg gacagtaggc ctgcctgctc 660  
17841 gctggcctgc ttgcgtggg gacagtaggc ctgcctgctg agggacagt agggctgttt 720  
17842 gctcgctgc ctgcctgctg agggacagt agggctgtg gcttgcttagt agggctgtc 780  
17843 gctggcctgc ttgcctgctc gctggcctgc ttgcctgctc gctggcctgc ttgcctgctc 840  
17844 gctggcctgc ttgcctgctc gctggcctgc ttgcctgctc gctggcctgc ttgcctgctc 900  
17845 gctggcctgc ttgcctgctc gctggcctgc ttgcgtggg gacagtaggg ctgcctgctt 960  
17846 gctaaggggg cggtaacgc gctgtatggc ttgatagtag ggctgtggg ctgcctgttag 1020  
17847 ggctgtggg ctgtatgtt ggctgtggg ctgcctgttag ggctgtggg ctgtatgttag 1080  
17848 ggctcctggg ctgtatgtt ggctgtggg ctgcctgttag ggctcctggg ctgcctgttag 1140  
17849 ggctgtggg ctgtatgtt ggctgtggg ctgcctgttag ggctgtggg ctgcctgttag 1200  
17850 ggctcctgc tggcttgcgtt gctgtgtgc tagtggggcc gcttcctgc tactagggct 1260  
17851 gctgtgcagc tgggagaaca gatgtggct gccggccagc tgcgtgcag ggcgtccgag 1320  
17852 ggccagacga ggacacggg cccggccctc tcccccggcc ggaccggccg gcacccggcc 1380  
17853 cagatct 1387

E--> 17856 1  
E--> 17859 117

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/831,000

DATE: 05/21/2001

TIME: 08:37:46

Input Set : A:\53683 seq listing.txt  
Output Set: N:\CRF3\05212001\I831000.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:1172 M:254 E: No. of Bases conflict, LENGTH:Input:6800 Counted:68700 SEQ:1  
M:254 Repeated in SeqNo=1  
L:3738 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12  
L:4118 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:14  
L:4549 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:18  
L:5325 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:30  
L:6175 M:254 E: No. of Bases conflict, LENGTH:Input:705 Counted:2115 SEQ:38  
L:7501 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:48  
L:8037 M:254 E: No. of Bases conflict, LENGTH:Input:465 Counted:1395 SEQ:58  
L:8596 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:66  
L:9047 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:72  
L:10538 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:90  
L:10680 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:92  
L:11016 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:96  
L:11337 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:102  
L:11403 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:104  
L:13405 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:128  
L:13729 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:132  
L:13879 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:134  
L:14641 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:140  
L:15803 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:144  
L:16096 M:254 E: No. of Bases conflict, LENGTH:Input:225 Counted:675 SEQ:148  
L:16516 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:154  
L:16622 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:156  
L:17856 M:254 E: No. of Bases conflict, LENGTH:Input:1 Counted:1387 SEQ:179  
M:254 Repeated in SeqNo=179